

- stimulation signal to the capacitive elements and receiving a sense signal from the capacitive elements.
- 40.** The method of claim **39**, wherein operating the capacitive elements during the touch phase comprises:
- driving capacitive elements in a drive region of pixels with a stimulation signal; and
 - sensing electric fields produced by the drive region with capacitive elements in a sense region of pixels.
- 41.** The method of claim **39**, wherein the display phase and the touch phase alternate periodically.
- 42.** The method of claim **39**, wherein operating the capacitive elements during the touch phase comprises:
- transmitting an alternating current (AC) signal through capacitive elements in the drive region, the AC signal having a same direct current (DC) offset as an LCD inversion signal transmitted through the capacitive elements during the display phase.
- 43.** The method of claim **39**, wherein the frequency of the stimulation signal is substantially greater than a response time of liquid crystal in pixels of the drive regions.
- 44.** The method of claim **39**, wherein operating the capacitive elements during the display phase comprises:
- transmitting an inversion signal through a common line connecting drive regions to perform LCD inversion of liquid crystal in pixels of the drive regions.
- 45.** The method of claim **44**, wherein the LCD inversion signal is a square wave signal.
- 46.** The method of claim **39**, further comprising:
- determining a location of a touch event sensed by a sense region based a misalignment of the sense region in a predetermined direction.
- 47.** The method of claim **39**, wherein a region of pixels is operated as a drive region during a first period of time and is operated as a sense region during a second period of time.
- 48.** A method of manufacturing a touch screen, the method comprising:
- forming a plurality of first common voltage lines connecting capacitive elements in a plurality of adjacent display pixels; and
 - forming a second common voltage line connecting two or more first common voltage lines.
- 49.** The method of claim **29**, wherein forming a plurality of first common voltage lines comprises:
- forming a first layer of conductive material including the first common voltage lines.

- 50.** The method of claim **29**, wherein forming a second common voltage line comprises:
- forming lower portions of the second common voltage line that connects together the first common voltage lines;
 - forming a passivation layer;
 - forming vias in the passivation layer; and
 - forming a second layer of conductive material including upper portions of the second common voltage line, wherein the upper portions are connected to the vias to form the second common voltage line.
- 51.** The method of claim **29**, wherein the capacitive elements include least one of pixel electrodes and storage electrodes.
- 52.** The method of claim **29**, wherein a plurality of second common voltage lines are formed, the method further comprising:
- forming a plurality of first common voltage lines and a plurality of second common voltage lines to include breaks that electrically separate groups of capacitive elements to form a plurality of regions of pixels, wherein all of the capacitive elements of pixels in a region are electrically connected together.
- 53.** The method of claim **52**, further comprising:
- forming touch sensing circuitry that transmits a stimulation signal through a group of capacitive elements.
- 54.** The method of claim **53**, wherein group of capacitive elements form at least one of a sense line and a drive line of a touch sensing system.
- 55.** The touch screen of claim **54**, wherein one or more regions of pixels are electrically connected to the touch sensing circuitry by one of a first common voltage line and a second common voltage line.
- 56.** The method of claim **52**, wherein the capacitive elements are formed as at least one of a fringe field electrode, a pixel electrode, and a storage electrode.
- 57.** The method of claim **52**, wherein one or more regions of pixels are formed in the shaped of one of a square, rectangle, a sawtooth, a pyramid, an inverted pyramid, and a zig-zag of polygons.
- 58.** The method of claim **29**, wherein at least one of a first common voltage line and a second common voltage line is formed in a same layer as a capacitive element.

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